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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR.	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/642,581	08/19/2003	Fang-Chen Cheng	29250-001063/US	2943

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HARNESS, DICKEY & PIERCE, P.L.C.  
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EXAMINER
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TSEGAYE, SABA

ART UNIT	PAPER NUMBER
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2619

MAIL DATE	DELIVERY MODE
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02/01/2008

PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

**Office Action Summary**

Application No.

10/642,581

Applicant(s)

CHENG ET AL.

Examiner

Saba Tsegaye

Art Unit

2619

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 17 January 2008.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1,3-14 and 17-20 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1, 3-14 and 17-20 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |  |   |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)                     | 4) <input type="checkbox"/> Interview Summary (PTO-413)           |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____                                      |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)          | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____  | 6) <input type="checkbox"/> Other: _____                          |

## DETAILED ACTION

### *Continued Examination Under 37 CFR 1.114*

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 01/17/08 has been entered.

2. Claims 1, 3-14, and 17-20 are pending. Currently no claims are in condition for allowance.

### *Claim Rejections - 35 USC § 112*

3. The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

4. Claims 1, 3-14, and 17-20 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention. The specification does not describe how the selected TTI being “**the lowest TTI**”.

5. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

6. Claims 1, 3-14, and 17-20 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

In claims 1, 11 and 12, the phrase “the selected TTI being the lowest TTI...” is vague. It is not clear what is referred by “**lowest TTI.**”

***Claim Rejections - 35 USC § 102***

7. Claims 1, 3-14 and 17-20 are rejected under 35 U.S.C. 102(e) as being anticipated by Vayanos et al. (US 2002/0122400 A1).

Regarding claims 1 and 11, Vayanos discloses a method for enhanced uplink data transmission, comprising:

independently generating a transport channel for each transmission mode, each transport channel having an associated transmission time interval (TTI) (0002; 0009; 0027);

multiplexing the generated transport channels on a selected TTI basis to form a composite transport channel, the selected TTI being selected from one of the TTIs associated with the independently generated transport channels (0029-0031, 0041), the selected TTI being the lowest TTI (shortest TTI) of the independently generated transport channel (0031); and

mapping the composite transport channel onto a physical channel (0033-0034).

Regarding claim 3, Vayanos discloses the method wherein the independently generating step generates first and second transport channels having first and second TTIs, and the second TTI is a multiple of the First TTI (0033; 0037).

Regarding claim 4, Vayanos discloses the method wherein the transmission mode associated with the first transport channel is a scheduled transmission mode and the transmission mode associated with the second transport channel is an autonomous transmission mode (0030-0031).

Regarding claim 5, Vayanos discloses the method wherein the first TTI is 2ms and the second TTI is 10ms (0040).

Regarding claim 6, Vayanos discloses the method wherein the generating step independently generates transport channels for more than one transmission mode (see fig. 2).

Regarding claim 7, Vayanos discloses the method wherein the TTI of each transmission mode is one of a sub-multiple and multiple of 10 ms (0040).

Regarding claim 8, Vayanos discloses the method wherein the independently generating step generates first and second transport channels having first and second TTIs, the transmission mode associated with the first transport channel is a scheduled transmission mode and the

transmission mode associated with the second transport channel is a autonomous transmission mode (0030-0031).

Regarding claim 9, Vayanos discloses the method wherein the first TYI is 2ms and the second TTI is 10ms (0040).

Regarding claim 10, Vayanos discloses the method wherein the mapping step maps the composite transport channel onto the physical channel on the selected TTI basis (0034).

Regarding claim 12, Vayanos discloses the method of wireless uplink communication comprising: mapping at least two transport channels within a physical channel (0034)

multiplexing the at least tow transport channels on a selected transmission time interval basis to form a composite transport channel, the selected TTI being selected from one of the TTIs associated with the at lest two transport channels (0029-0031, 0041), the selected TTI being the lowest TTI (shortest TTI) of the independently generated transport channel (0031).

Regarding claim 13, Vayanos discloses the method wherein each of the transport channels has a distinct transmission time interval ("TTI") associated thereto (0002, 0037).

Regarding claim 14, Vayanos discloses the method wherein the two transport channels are generated for each transmission mode (see fig. 2).

Regarding claim 17, Vayanos discloses the method wherein the selected TTI is a minimum of the TTIs associated with the at least two transport channels (0037).

Regarding claim 18, Vayanos discloses the method wherein the transport channels are generated by generating at least a first and a second transport channel having first and second TTIs, and the second TTI is a multiple of the first TTI (0033).

Regarding claim 19, Vayanos discloses the method wherein the transmission mode associated with the first transport channel is a scheduled transmission mode and the transmission mode associated with the second transport channel is an autonomous transmission mode (0031).

Regarding claim 20, Vayanos discloses the method wherein the step of mapping maps the composite transport channel onto the physical channel on the selected TTI basis (0034).

### ***Response to Arguments***

8. Applicant's arguments with respect to claims 1, 3-14, and 17-20 have been considered but are moot in view of the new ground(s) of rejection.

Applicant argues that Vayanos does not disclose “*multiplexing the generated transport channels on a selected TTI basis to form a composite transport channel.*” Examiner respectfully disagrees. Vayanos clearly discloses, in Fig. 2, “...the data streams are multiplexed by multiplexer module 48 into one data stream called the transport stream 50 (0028).” The multiplexer (48) is configured to receive a plurality of data streams (40-46) on to a single data

stream (50) based on TFCs that meet TTI constraints. Further, Vayanos discloses that TTIs boundary for one transport channel is also a boundary for all transport channels that have **equal or shorter** TTI (0041). Applicant, further, argues that Vayanos does not discloses “...*the selected TTI being the lowest TTI of the independently generated transport channels.*” Examiner respectfully disagrees with Applicant assertion. Vayanos discloses that data streams 40-46 (fig. 2) can be prioritized with any priority scheme known in the art such as FIFO, LIFO, and **shortest-job-first** (0031). It is respectfully submitted that the pending claims as they currently stand read in the Vayanos reference.

Regarding claims 3-10, 13, 14 and 17-20 are dependent upon claims 1 and 12, which the Examiner believes are anticipated by Vayanos as set forth in the 102 rejection above.

Note:

On page 5 (last paragraph), Applicant’s remarks contain a typo error since Riddick is not used in the previous rejection.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Saba Tsegaye whose telephone number is (571) 272-3091. The examiner can normally be reached on Monday-Friday (7:30-5:00), First Friday off.

If attempts to reach the examiner by telephone are unsuccessful, the examiner’s supervisor, Wing Chan can be reached on (571) 272-7493. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.



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Saba Tsegaye  
Examiner  
Art Unit 2619

ST  
January 24, 2008

  
WING CHAN 1/30/08  
SUPERVISORY PATENT EXAMINER